COUNCIL AGENDA: 9/23/14
ITEM: 2.8

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: David Sykes
Kerrie Romanow

SUBJECT: **SEE BELOW**

DATE: September 4, 2014

Approved [signature] Date 9/4/14

SUBJECT: APPROVAL OF THE USE OF THE DESIGN-BUILD PROJECT DELIVERY METHOD FOR THE COGENERATION FACILITY PROJECT AT THE SAN JOSE-SANTA CLARA REGIONAL WASTEWATER FACILITY

RECOMMENDATION

Adopt a resolution approving the use of the design-build project delivery method in accordance with California Public Contract Code Section 20193 for the construction of the Cogeneration Facility Project, which is estimated to cost in excess of $2,500,000.

OUTCOME

Approval of the use of the design-build process for the construction of the Cogeneration Facility Project ("Project"), by the City Council in accordance with California Public Contract Code Section 20193, will enable the City to solicit design-build entities to construct the Cogeneration Facility Project at the San José-Santa Clara Regional Wastewater Facility[1] (Wastewater Facility).

BACKGROUND

In 2012, the City completed an Energy Management Strategic Plan that assessed the Wastewater Facility's existing and future power demands and condition of the existing energy systems. The study identified existing, aging cogeneration equipment as a critical issue that would need to be addressed in order to maintain onsite production of a reliable supply of power and heat. Cogeneration equipment at the Wastewater Facility consists of engines which utilize available digester gas (produced by the on-site anaerobic digestion tanks) to produce power to meet a

[1] *The official name of the facility remains San Jose/Santa Clara Water Pollution Control Plant, but beginning in early 2013, the facility was approved to use a new common name, the San José-Santa Clara Regional Wastewater Facility.*

significant portion of the Wastewater Facility's power requirements, as well as, producing heat required by the anaerobic digestion tanks.

Existing cogeneration equipment at the Wastewater Facility ranges from 20 to 61 years of age, and has been subject to breakdowns of increasing frequency and severity. The acquisition of parts for aging equipment is equally a critical consideration. As a result, the 2012 study recommended that the existing cogeneration equipment be replaced in order to provide reliable on-site power and heat.

The new Cogeneration Facility will consist of advanced generation internal combustion engines selected based on their low capital cost, high electrical efficiency, and high availability of high-grade heat for the anaerobic digestion tanks. The new engines will replace all existing Wastewater Facility engines with the exception of the recently installed Fuel Cell. Accounting for the Fuel Cell, power output on the engines is expected to meet projected power demands through 2036. In addition, the Cogeneration Facility project scope includes a new digester gas treatment system, control system and monitoring system with connectivity to the Wastewater Facility's Distributed Control System (DCS), electrical switchgear, various additional appurtenances in support of the engines and building, a new digester gas pipeline and natural gas pipeline, new heat recovery systems, and civil work including parking areas and utilities (water, stormwater and sanitary sewer lines). See Attachment "A" for the project location map.

The City has the authority under its Charter to use the design-build delivery method for construction of City capital projects as an alternative to the traditional design-bid-build approach to building public works projects. Design-build can provide the owner with the flexibility to define the project based on available funds, select a contractor based on qualifications and other factors rather than strictly lowest bid, and negotiate a contract structured around the project's priorities. The City has successfully used the design-build project method at the Norman Mineta San José International Airport and the Convention Center. The City is also in the process of using design-build for the United States Patent and Trademark Office Project.

However, the Wastewater Facility is a regional wastewater treatment facility serving eight South Bay cities and four special districts, jointly owned by the cities of San José and Santa Clara and administered and operated by the City of San José. Because of this regional nature of the Wastewater Facility, the City must comply with State law requirements in its procurement of construction projects at the Wastewater Facility on a design-build basis, and cannot rely upon its Charter authority to do so. Of currently existing options under State law, Section 20193 of the State Public Contract Code ("PCC") provides the City with the clearest and broadest authority to pursue procurement of the Cogeneration Facility project on a design-build basis.

ANALYSIS

Section 20193 of the PCC allows local entities who operate waste water facilities, solid waste facilities, or water recycling facilities to utilize the design-build procurement method for construction projects that are in excess of $2,500,000, upon obtaining approval from the

Governor's Office of Planning and Research ("OPR") and the local entity's governing body. Under Section 20193, design-build projects may be procured on the basis of either: a) a competitive process resulting in lump sum bids; or b) a competitive process that is based on best value and is evaluated by using criteria and selection procedures specifically identified in the request for proposal. However, as distinguished from the City's Charter design-build authority, for best value procurements under Section 20193 there are minimum factors required by the statute which shall each represent at least 10 percent of the total weight of consideration given to all criteria factors: price, technical design and construction expertise, life cycle costs over 15 years or more, skilled labor force availability, and acceptable safety record. It is staff's intention to procure the Cogeneration Facility project on a best value basis.

The Cogeneration Facility Project is estimated to cost approximately $80,000,000, which is in excess of the $2,500,000 minimum cost requirement in Section 20193. The City also completed and complied with the environmental review process for the Project, as required by the California Environmental Quality Act. The City sought approval from the OPR to proceed with the design-build construction of the Cogeneration Facility Project on June 2, 2014, and the OPR approved the City application on June 12, 2014. Final approval of the use of the design-build bidding for the Project is now required by the City Council.

The proposed design-build procurement approach to the Cogeneration Facility Project was selected for the following reasons:

- Time savings: Long lead items, such as the large engines, switchgears, and gas treatment systems, may be selected and ordered at the earliest stage of the design effort, thereby significantly shortening the overall time schedule.

- Cost savings: This Project includes the design and coordination of plans, specifications, and submittals for complex mechanical, electrical and controls systems. Design-build provides the potential for cost savings by having a single entity provide both the design and construction in a one-stop process, thereby improving project coordination.

- Improved project coordination: A design-build approach provides a single point of responsibility for working through engineering and construction challenges. This can significantly reduce project risks to the owner by reducing or avoiding claims and disputes. Improved coordination can also yield innovative solutions to project challenges that would be more difficult to overcome in a design-bid-build environment.

In accordance with Section 20193, staff is developing the solicitation documents necessary to acquire the services of a design-build contractor. The procurement approach is as follows:

- Request for Pre-qualifications: The PCC requires a procedure to prequalify design-build entities. In general, it is envisioned that the Request for Pre-qualifications process will follow standard City of San José format and requirements, as tailored to the requirements of Section 20193 and the present project. All design-build entities that intend to submit a

proposal for the Cogeneration Facility project must fully complete a Pre-qualification Submittal and materials requested and must be approved by the City to be on the final pre-qualified proposer's list. A selection committee comprised of City staff will evaluate the Pre-qualification submittals. The evaluation will address design experience, construction experience, and design-build experience as applicable to wastewater facilities and the development of cogeneration facilities as well as financial capability to take on the project.

- Request for Proposals: The PCC requires a Request for Proposal (RFP) process for submittal of proposals by prequalified design-build entities. Again, in general, it is envisioned that the RFP process will follow standard City of San José format and requirements, as tailored to the requirements of Section 20193 and the present project. The RFP will describe the selection process that will be used, the information required of proposers, a description of the program, and the necessary forms for submitting a proposal. A selection committee comprised of staff from the City Manager's Office, the Environmental Services Department and Public Works Department, a labor union representative and an individual from another wastewater facility will evaluate the written proposals, the sealed project price and life-cycle cost proposals, and then conduct interviews with the most qualified firms.

The advertisement for the Request for Pre-qualification will begin in September 2014, and the RFP will be complete and ready for advertising by November 2014.

EVALUATION AND FOLLOW-UP

After conclusion of the Request for Proposal process, staff will present the list of ranked design-build firms for council approval and authority to negotiate in March 2015. Staff would next return to Council with a proposed award of the contract immediately after negotiations are complete (anticipated to be May 2015).

PUBLIC OUTREACH/INTEREST

This memorandum will be posted on the City's Council Agenda Website for the September 23, 2014, Council Meeting at http://www.sanjoseca.gov/index.aspx?nid=3549.

COORDINATION

This report has been coordinated with the City Attorney's Office. This is scheduled to be heard at the September 11, 2014, Treatment Plant Advisory Committee meeting.

COST SUMMARY/IMPLICATIONS

Advertisement of the Project does not commit the City to fund or construct the Project. The award of the Project will return to City Council for approval.

CEQA

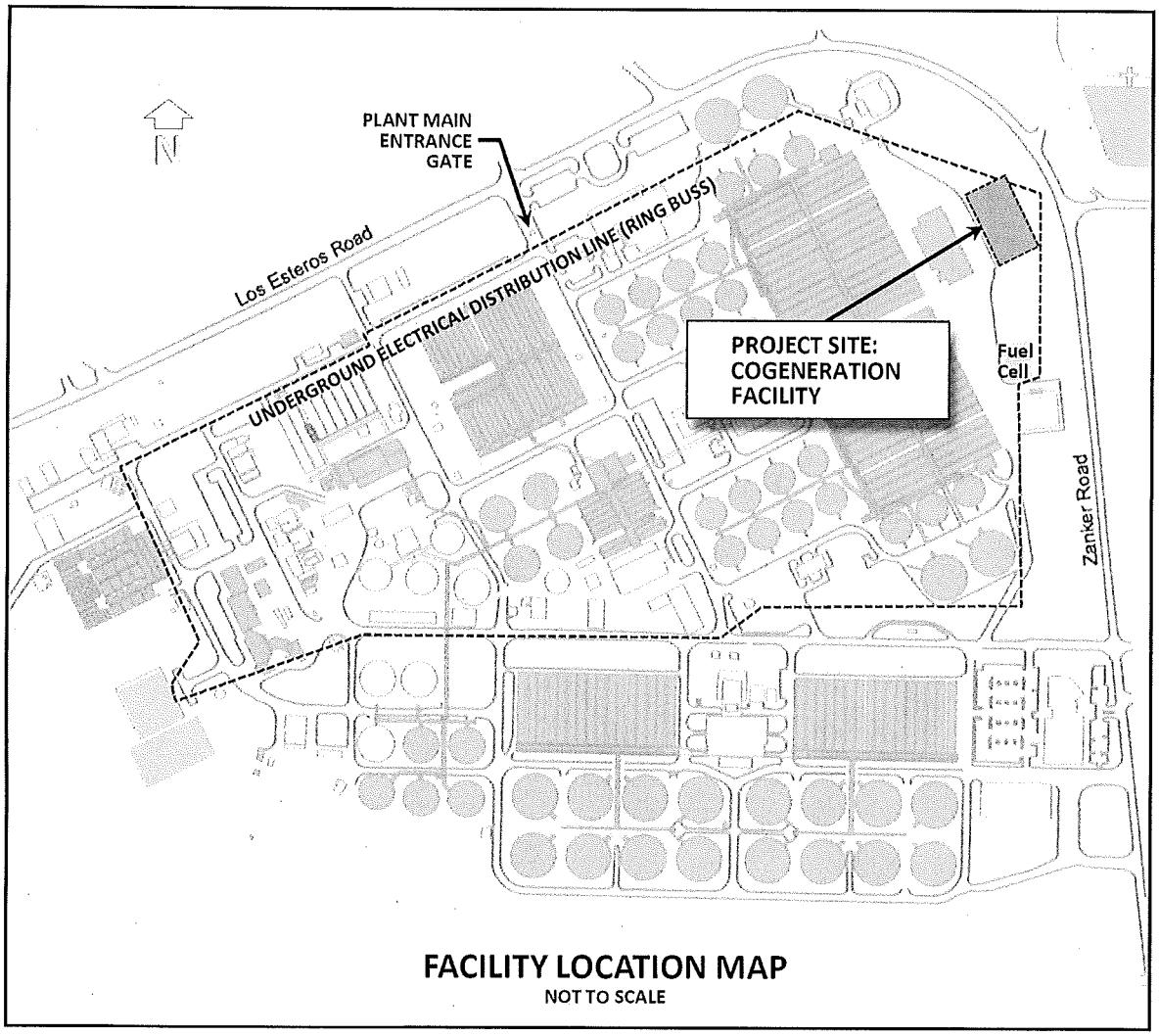
Mitigated Negative Declaration, File No. PP14-005

/s/
DAVID SYKES
Director, Public Works

/s/
KERRIE ROMANOW
Director, Environmental Services

For questions please contact John Cannon, Principal Engineer, Department of Public Works, at 408-945-3066.

Attachment: A Project location map



FACILITY LOCATION MAP
NOT TO SCALE